

## CLAIMS

1. In a wireless communication system, a method comprising:  
determining a transmission configuration for a first channel as a function of Peak-to-Average Ratio (PAR) on the first channel, the transmission configuration including a spreading code and a modulation path;  
if the spreading code is used by another channel in the wireless communication system, updating the transmission configuration as a function of PAR; and  
applying the transmission configuration to the first channel.
2. The method as in claim 1, wherein the modulation path is selected from an In-phase (I) branch and a Quadrature (Q) branch.
3. The method as in claim 2, wherein the first channel is a dedicated physical channel on an uplink in the wireless communication system.
4. The method as in claim 3, wherein the wireless communication system includes a plurality of dedicated data channels and at least one dedicated control channels.
5. A wireless communication apparatus, comprising:  
means for determining a transmission configuration for a first channel as a function of Peak-to-Average Ratio (PAR) on the first channel, the transmission configuration including a spreading code and a modulation path;  
means for updating the transmission configuration as a function of PAR if the spreading code is used by another channel in the wireless communication system; and  
means for applying the transmission configuration to the first channel.

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6. A wireless apparatus, comprising:
- modulation pair selection unit for determining a modulation pair based on  
Peak-to-Average Ratio (PAR); and
  - selector coupled to the modulation pair selection unit, that selects a  
modulation path based on the modulation pair.

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